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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/695,461	10/28/2003	Harumi Anne Kuno	200207002-1	5631
22879 7590 04/06/2007 HEWLETT PACKARD COMPANY P O BOX 272400, 3404 E. HARMONY ROAD INTELLECTUAL PROPERTY ADMINISTRATION FORT COLLINS, CO 80527-2400			EXAMINER PANTOLIANO JR, RICHARD	
			ART UNIT	PAPER NUMBER
			2194	
SHORTENED STATUTORY PERIOD OF RESPONSE		MAIL DATE	DELIVERY MODE	
3 MONTHS		04/06/2007	PAPER	

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/695,461

Applicant(s)

KUNO ET AL.

Examiner

Richard Pantoliano Jr

Art Unit

2194

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 October 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 20040123.


WILLIAM THOMSON
SUPERVISORY PATENT EXAMINER

- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

1. This is the initial office action for Application# **10/695,461** filed on **28 October 2003**. **Claims 1-28** are currently pending and have been considered below.

Claim Objections

2. **Claim 7** is objected to because of the following informalities: line 4 should end with a colon. Appropriate correction is required.

Claim Rejections - 35 USC § 101

3. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

4. **Claims 19-28** are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

5. The current focus of the Patent Office in regard to statutory inventions under 35 U.S.C. § 101 for method claims and claims that recite a judicial exception (software) is that the claimed invention recite a practical application. Practical application can be provided by a physical transformation or a useful, concrete and tangible result.

6. As per independent **Claim 19**, no physical transformation is recited and additionally, the final result of the claim is a system to interface with a distributed system, which is not a tangible result because all of the components of the system constitute software *per se*. Without some form of physical medium to allow the system to produce a tangible result, software *per se* is non-statutory.

7. As per **Claim 20**, it fails to correct the deficiencies of **Claim 19** and is, therefore, rejected for the same reasoning as provided for **Claim 19**.

8. As per independent **Claims 21 and 25**, and dependent **Claims 22-24 and 26-28**, these claims suffer the same deficiencies as **Claims 19 and 20**, and are, therefore, rejected for the same reasoning as provided for **Claims 19 and 20**.

Claim Rejections - 35 USC § 102

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

10. **Claims 1,2, 5-9, 12-14, 17-20 and 25-27** are rejected under 35 U.S.C. 102(b) as being anticipated by Eanes (US PGPub: 2003/0005412).

11. As per **Claim 1**, Eanes discloses the invention substantially as claimed including a processor-implemented method for interfacing with a distributed computing service, comprising:

a) accessing a semantic interpretation specification that describes rules for semantically exchanging data with the distributed computing service (para. [0026], [0029]-[0045]);

b) entering the semantic interpretation specification into a rules engine adapted for providing processor executable procedures (para. [0049]-[0057]);

c) obtaining a set of procedures from the rules engine for interacting with the distributed service based on the semantic interpretation specification (para. [0026]-[0029]);

d) receiving a request for interfacing with the distributed service (para. [0028]);
and

e) interfacing with the distributed computing service using the set of procedures in response to the request (para. [0028]).

12. As per **Claim 2**, Eanes further teaches wherein the distributed computing service comprises a Web service (para. [0013], [0026], [0028], [0057] and [0058]).

13. As per **Claim 5**, Eanes further teaches accessing an ontology specification describing messages of the distributed computing service, and wherein interfacing with the distributed computing service using the set of procedures further comprises forming distributed computing service messages based on the ontology specification for use in the set of procedures (Fig. 1, item 4 and para. [0028]).

14. As per **Claim 6**, Eanes further teaches wherein interfacing with the distributed computing service using the set of procedures comprises forming a service bridge

having a generic programmatic interface adapted to receive the request (para. [0028])
(The agent meets this claim limitation).

15. As per **Claim 7**, Eanes discloses the invention substantially as claimed including an apparatus, comprising:

a) a data transfer interface for providing data connections to a distributed computing service (para. [0013], [0018], [0057], [0058] and Fig. 1) (Since this apparatus functions on a network, it inherently requires that the apparatus have a network interface card to communicate on that network, thereby meeting this claim limitation);
and

b) a processor arranged to:

i) access a semantic interpretation specification describing a behavior used to interface with the distributed computing service (para. [0026], [0029]-[0045]);

ii) enter the semantic interpretation specification into a rules engine adapted for providing processor executable procedures (para. [0049]-[0057]);

iii) obtain a set of procedures from the rules engine for interacting with the data transfer service based on the semantic interpretation specification (para. [0026]-[0029]); and

iv) interface with the distributed computing service via the data transfer interface using the set of procedures (para. [0026]-[0029]).

16. As per **Claim 8**, this claim is rejected for the same reasoning applied to **Claim 7**.

17. As per **Claim 9**, Eanes further teaches wherein the distributed computing service comprises a Web service (para. [0013], [0026], [0028], [0057] and [0058]).

18. As per **Claim 12**, Eanes further teaches a memory and a service bridge module stored in the memory, the service bridge module operable via the processor to activate the set of procedures based on instructions from a generic programmatic interface of the service bridge module (para. [0015], [0028] and Fig. 1).

19. As per **Claims 13, 14, 17, and 18**, being directed to a computer readable medium encoded with instructions for performing the method of **Claims 1,2,5, and 6**, respectively, these claims are rejected for the same reasoning as provided for **Claims 1, 2, 5 and 6**, respectively.

20. As per **Claim 19**, Eanes discloses the invention substantially as claimed including a system comprising:

a) means for providing a distributed computing service (para. [0013], [0026], [0028], [0057] and [0058]);

b) means for storing a semantic interpretation specification describing a behavior used to interface with the distributed computing service (para. [0049]-[0057]);

c) means for accessing the semantic interpretation specification for entry into a rules engine adapted for providing processor executable procedures (para. [0026]-[0029]);

d) means for obtaining a set of procedures from the rules engine for interacting with the distributed service based on the semantic interpretation specification (para. [0026]-[0029]); and

e) means for interfacing with the distributed computing service using the set of procedures (para. [0026]-[0029]).

21. As per **Claim 20**, Eanes further teaches:

a) means for accessing an ontology describing messages of the distributed computing service (para. [0028]-[0046]); and

b) means for forming distributed computing service messages based on the ontology for use in the set of procedures (para. [0028]-[0046]).

22. As per **Claim 25**, Eanes discloses the invention substantially as claimed including a system comprising:

a) a first data processing arrangement configured to provide a distributed computing service (para. [0026], [0029]-[0045]);

b) a data storage arrangement containing a semantic interpretation specification describing a behavior used to interface with the distributed computing service (para. [0026], [0029]-[0045]);

c) a second data processing arrangement having a rules engine adapted for providing processor executable procedures, the second data processing arrangement configured to:

- i) receive a request to interface with the distributed computing service (para. [0028]);
- ii) access the semantic interpretation specification from the data storage arrangement (para. [0026], [0029]-[0045]);
- iii) enter the semantic interpretation specification into the rules engine (para. [0049]-[0057]);
- iv) obtain a set of procedures from the rules engine for interacting with the distributed service based on the semantic interpretation specification (para. [0026]-[0029]); and
- v) interface with the distributed computing service using the set of procedures (para. [0028]).

23. As per **Claim 26**, Eanes further teaches wherein the distributed computing service comprises a Web service (para. [0013], [0026], [0028], [0057] and [0058]).

24. As per **Claim 27**, Eanes further teaches wherein the a data storage arrangement is adapted for providing the semantic interpretation specification via a network (para. [0013], [0018], [0057], [0058] and Fig. 1) (Since this apparatus functions on a network, it

inherently requires that the apparatus have a network interface card to communicate on that network, thereby meeting this claim limitation).

Claim Rejections - 35 USC § 103

25. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

26. **Claim 3, 4, 10, 11, 15, 16, 21-24, and 28** are rejected under 35 U.S.C. 103(a) as being unpatentable over Eanes in view of Ott et al (US PGPub: 2002/0150093), hereafter Ott.

27. As per **Claim 3**, Eanes teaches the method of **Claim 1**, but does not explicitly teach wherein the semantic interpretation specification comprises an expert system interpretable specification.

28. Ott teaches wherein the semantic interpretation specification comprises an expert system interpretable specification (para. [0058]-[0081]).

29. It would have been obvious to one of ordinary skill at the time of invention to modify the method of Eanes with the teachings of Ott. One would have been motivated by the fact that Eanes explicitly states that the process of generating agents can be automated (para. [0016] and [0028]) based on the rules provided and Ott explicitly

states that the primary purpose of an expert system can be used to automate processes normally performed by humans in a networked system (para. [0058]-[0061]).

30. As per **Claim 4**, Ott further teaches wherein the semantic interpretation specification comprises rules usable with a rule-based expert system (para. [0058]-[0081]).

31. As per **Claim 10**, Eanes teaches the apparatus of **Claim 8**, but does not explicitly teach wherein the semantic interpretation specification comprises an expert system interpretable specification.

32. Ott teaches wherein the semantic interpretation specification comprises an expert system interpretable specification (para. [0058]-[0081]).

It would have been obvious to one of ordinary skill at the time of invention to modify the apparatus of Eanes with the teachings of Ott. One would have been motivated by the fact that Eanes explicitly states that the process of generating agents can be automated (para. [0016] and [0028]) based on the rules provided and Ott explicitly states that the primary purpose of an expert system can be used to automate processes normally performed by humans in a networked system (para. [0058]-[0061]).

33. As per **Claim 11**, Ott further teaches wherein the semantic interpretation specification comprises rules usable with a rule-based expert system (para. [0058]-[0081]).

34. As per **Claims 15 and 16**, being directed to a computer readable medium encoded with instructions for performing the method of **Claims 3 and 4**, respectively, these claims are rejected for the same reasoning as provided for **Claims 3 and 4**, respectively.

35. As per **Claim 21**, Eanes discloses the invention substantially as claimed including a method of interfacing with a distributed computing service comprising:

- a) accessing a semantic interpretation specification describing rules for semantically exchanging data with the distributed computing service based on the message type (para. [0026], [0029]-[0045]);
- b) entering the semantic interpretation specification into a rules engine adapted for providing processor executable procedures (para. [0049]-[0057]);
- c) obtaining a set of procedures from the rules engine for interacting with the distributed service based on the semantic interpretation specification (para. [0026]-[0029]); and
- d) interfacing with the distributed computing service using the set of procedures in response to the message (para. [0028]).

36. Eanes does not explicitly teach receiving a message from the distributed computing service and identifying a message type of the message for processing of the message.

37. Ott teaches receiving a message from the distributed computing service and identifying a message type of the message for processing of the message (para. [0080] and [0081], [0084] and [0085]).

38. It would have been obvious to one of ordinary skill in the art at the time of invention to modify the method of Eanes with the teachings of Ott. One would have been motivated by the fact that a client must receive a message, either directly or indirectly, from a Web service describing the services offered by the service and how to further communicate with that service.

39. As per **Claim 22**, Eanes further teaches wherein the distributed computing service comprises a Web service (para. [0013], [0026], [0028], [0057] and [0058]).

40. As per **Claim 23**, Ott further teaches wherein the semantic interpretation specification comprises expert system rules (para. [0058]-[0081]).

41. As per **Claim 24**, Eanes further teaches accessing an ontology specification describing the message, and wherein interfacing with the distributed computing service using the set of procedures further comprises forming a response message based on the ontology specification (para. [0015] and [0028]-[0049]).

42. As per **Claim 28**, Eanes teaches the method of **Claim 1**, but does not explicitly teach wherein the semantic interpretation specification comprises a expert system rules.

43. Ott teaches wherein the semantic interpretation specification comprises a expert system rules (para. [0058]-[0081]).

44. It would have been obvious to one of ordinary skill at the time of invention to modify the method of Eanes with the teachings of Ott. One would have been motivated by the fact that Eanes explicitly states that the process of generating agents can be automated (para. [0016] and [0028]) based on the rules provided and Ott explicitly states that the primary purpose of an expert system can be used to automate processes normally performed by humans in a networked system (para. [0058]-[0061]).

Conclusion


45. The prior art made of record on the P.T.O. 892 that has not relied upon is considered pertinent to applicant's disclosure. Careful consideration of the cited art is required prior to responding to this Office Action, see 37 C.F.R. 1.111(c).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Richard Pantoliano Jr whose telephone number is (571) 270-1049. The examiner can normally be reached on Monday-Thursday, 8am - 4 pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Thomson can be reached on (571)272-3718. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

RP
3/28/07


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